



## MSE Students and Alumni

Fall 2020

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### Interested candidates should NOT apply online

Everyday, qualified students search the web for job offers, apply online, and sit to wait for responses. When no one replies, more applications go out with the same resume or CV (what is the difference anyways), and the same cover letter, unless one is not required. Cover letters are boring and nobody reads them, right?. Submit, wait, repeat.

**Everyday, qualified professionals fall into the same old trap, "Interested candidates should apply online".**

The number one reason why I started this newsletter is because of the realization that knowing people is what gets you places, and online applications very rarely deliver. You can read more about what caused this realization [here](#).

**Take a look at Jonathan Reeder's story, like others featured in previous newsletters, which shows in reality you get the job first and then you apply online.**

Would you like a guide for efficient job hunting on the next newsletter?

[\\_Yes](#)

[\\_No](#)

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## One step closer to tenure

## Jonathan Reeder, PhD

Assistant Professor at  
Knight Campus  
University of Oregon



### From Grad Student to Postdoc

I received both my undergraduate degree in Mechanical Engineering and my PhD in Materials Science and Engineering from UT Dallas in 2012 and 2016, respectively. Towards the end of my undergraduate junior year, I took a Thermodynamics class taught by Prof. Walter Voit. Since I had just finished my collegiate baseball career at UTD, I needed something to fill my time, and was fortunate to land a research position in Prof. Voit's lab. I enjoyed my research so much, that I ended up transferring directly into the MSE department for my PhD.

Toward the end of my PhD, I snuck into a student seminar dinner with speaker, Prof. John Rogers, hosted by the UTD Chemistry department. I was not a chemistry student and was not allowed to sign up for the dinner to meet him, but there were open spots, so **I invited myself in. I told him about my research interests. After a couple emails in the following weeks, I was offered a postdoc position in his group.** I am not sure if Prof. Rogers knows even now that I am not a chemist, but I think it worked out regardless.

### Three differences between being a Grad Student and a Postdoc

**1. The acceptable/expected rate of progress.** If you think about your research as a series of iterations on the scientific method, then after a while, you will start to feel a cadence as you iterate multiple times. My experience in grad school was primarily about developing a feel for that cadence, and my postdoc was trying to accelerate it.

**2. Timeline.** If graduate school is a marathon, then a postdoc is a sprint. During my postdoc, there was an expectation that I would be able to operate with minimal oversight and direction, while still maintaining a rapid pace of new results. So, that forced me to think hard about the direction I wanted to take my research, and what types of experiments I would run.

**3. Generalizable skills.** As a graduate student, I learned a very specific set of tools, but the most valuable skills were those that were broadly applicable. Since typically you do not do the same type of work during grad school and your postdoc, the best ones can generalize

what they have previously learned and extrapolate that to work on new projects.

## From Postdoc to Assistant Professor

I was able to interview at the Knight Campus for Accelerating Scientific Impact at the University of Oregon in person in Spring 2020, just before the lockdown. I was impressed by their vision to build a hub for applied research and engineering in the Pacific Northwest. **The position was recommended to me by my postdoc advisor. I was fortunate to receive an offer to join as an assistant professor**, and I could not turn down the opportunity to be a part of helping to build a new culture. At the same time, I would be building my own research program. In a way, it is like being a part of a startup in that the structure is still being developed, which means there is incredible opportunity to be agile as we work towards building an innovative and productive program.

## Three differences between being a Postdoc and an Assistant Professor

**1. Responsibilities.** As a postdoc, I had the opportunity to apply sustained effort on my research with blinders on over long periods of time without worrying about funding, etc. In retrospect, I feel fortunate to have had the opportunity to intensely focus on a problem without peripheral responsibilities.

**2. Goals and vision.** Grad school, and to some extent a postdoc, is about executing your advisor's vision. As a PI, you need to define the problems, and I am learning to extend the timeline and scope of research projects that I am thinking about.

**3. Timeline.** Similar to other transition from grad school to postdoc, the timeline shifts when you transition to a PI. You need to plan much longer term and balance additional responsibilities.

## Find research you enjoy doing and spend a lot of time on it

My research has been most fulfilling when I was laser focused on the fine details of my work. If you do not find the tiny aspects of your work interesting it is hard to stay motivated when the pace of results is slow. A second part of that would be to continually ask yourself "Who cares? Why is what I'm doing important?". Ultimately the goal of your research should be to have a positive impact in the world.

The intersections between traditional fields of study are the most exciting to me. **The reason I enjoy research is because the mode of success is focused on getting one "yes" as opposed to not getting a "no"**. You only need one funding agency to say "yes" for a project

to be successful. Of course there are instances of “no” along the way, but none of those can stop your progress. This is not unique to interdisciplinary research, but is why I ended up in academia and not industry

What excites me most about academic research now is working with passionate researchers, so I'm looking forward to working with talented students and postdocs, especially from UTD! **Interested students and postdocs can find more information at our lab website at [reeder.uoregon.edu](http://reeder.uoregon.edu) or send me an email at [jtreeder@uoregon.edu](mailto:jtreeder@uoregon.edu).**

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**Thank you, Jonathan,** for sharing your story with us. We wish you continued success well beyond your expectations.

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## **Share this newsletter around**

Invite the community to join in. Everyone is welcome.

For archived versions follow this [link](#).

If you would like to stay in touch with the MSE community,  
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Send me an e-mail at [mirelesmarce@gmail.com](mailto:mirelesmarce@gmail.com)**

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